



Chambers's Journal

SIXTH SERIES.

IN THE POOR MAN'S HOTEL, LONDON.

IT is not pleasant for a man who arrives in England from a long voyage to find that he has to wait several days before he can cash the draft which is to furnish him with liberty of movement. Such was my predicament in London not long ago; and when, on the morning after my arrival there, I overhauled the contents of my purse, I gazed at a pretty long face in the looking-glass before which I was standing.

For two or three nights I put up at an ordinary commercial hotel, paying half-a-crown for an untidy bedroom, and eating my meals in the stuffy, unsavoury coffee-room below, whence a full view could be had of what was going on in the diminutive kitchen adjoining. The days passed; and, my letters being still delayed, I was compelled to quit my little bedroom, and to ruminate for a few hours in the foggy London streets. Once more my hand plunged into my pocket and brought forth my available capital for inspection. Yes, it had come to that: I must pick up my meals anyhow, and for the present sleep in a 'doss-house'—that is, to put it down plainly, occupy a dirty narrow bed in a dirty room, among some dozen dirty, noisy people, whose speech consists of stupid obscenities, and whose breaths reek of the chemically manufactured 'four-ale,' the staple tippie of the London poor. After paying your 'tanner' to a loudly-dressed personage at the entrance, who looks like a retired pugilist, you can descend into the common kitchen in the basement, to warm yourself before retiring; and if you are wise, and wish to escape being unmercifully bantered in the choicest vernacular, you will avoid an air of aloofness or superior virtue while sitting among your ragged fellow-guests. It is by no means a romantic situation to be in—indeed, you begin to think it would be preferable to tramp the streets; but the thought of the slimy, greasy London streets at night, with their pall of chilling, bewildering fog, that recalls to you, not Kipling's, but Thomson's *City of Dreadful Night*,

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quickly drives you back again to the warm, bright fire of the dilapidated kitchen, with its grimy and repulsive inmates, speaking in a language which to you is almost unknown. Listen to this gaunt, tattered old fellow at your elbow, whose peddling stock-in-trade is flung carelessly at his feet, as he expounds to you, with half-drunken emphasis, his philosophy of life:

'Wot I says is this, mate. Put me in any part of London with a couple of bob in my fist, and I makes a crown of 'em easy afore night; but 'epose I ain't got the blunt, how does I proceed—hay? Do I look like a green 'un, or do I not? Look at some of these yer ones. There's Bill Simmons—him with the black eye; he begs a tanner of a pore pusson in the New Cut, and gets run in; and serves him right. I know a trick worth two of that. None of your pore broken-down toffs for me; a high-toned gentleman's my game, and Piccadilly is my 'appy 'untin'-ground. And I never fails—leastways when I don't cringe and snivel as if I was Bill Simmons awskin' fur a tanner of a pore pusson—the bleedin' idjit!'

On the third morning of my stay in the 'doss-house' I was disconsolately sauntering along the embankment between Westminster and Lambeth Bridges, when I entered into conversation with a genial policeman, who was slowly pacing his beat. In the course of our walk together I informed him briefly of the circumstances in which I was placed, and of the unpleasant character of my lodging, when he turned and asked me:

'Hever been to Rowton 'Ouse, sir? No. Well, there's one on 'em not fur off, by Vauxhall Station yonder; and if you like to look in there, I think you will find yourself better suited.'

I soon found myself before the entrance of a large brick building, with many windows and a single wide door. On entering I had to pass through a turnstile, beside which was the ticket-office, while in front was a cream-coloured brick wall, with a clock in the centre, and corridors to left and right of it. After paying a sixpence

MARCH 25, 1899.

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for a night's lodging, and receiving a ticket in exchange, I took my way along the right-hand passage, and soon reached the large dining-hall, which was at that hour a scene of varied activity, for breakfast was in progress. At least fourscore men of different ages, and in every description of dress, were scattered about the long room (it measures about 160 feet by 20 feet), either seated at the long deal tables, or purchasing cooked edibles at the bar, or cooking at two large ranges—frying bacon, toasting bread and bloaters, and infusing tea. The bar, at which prices ranged from one halfpenny to sixpence, was attended by two smart girls dressed in nurse-like black and white.

One old gentleman in the crowd particularly took my eye. He was faultlessly attired, wore a silk hat, and had a gray beard; and as he stood with long toasting-fork before the blazing coke-fire, apparently as unconcerned as the roughest there, he had the look of a broken-down banker or City merchant. He could have bought a herring ready-cooked at the bar for a penny; but (as I afterwards ascertained) he obtained two outside for a penny, and by cooking one of them for himself had still one left for another occasion. When the bloater was cooked he placed it upon a plate which he had in readiness; and then, going to the table, with great deliberation spread out an old newspaper, tablecloth fashion, upon a corner of it. He returned to the fire for his herring, and also taking up from a lot of tin teapots there one marked on the spout with a bit of blue paper, brought bloater and teapot back to the table. He now disappeared through the door by which I had entered, but soon returned carrying in one hand a few dishes, with a knife, fork, and spoon, and under his left arm a two-foot wooden box marked 'Hudson's Soap;' and, depositing his burden on the table, divested himself of his hat and cloak, and sat down. My wonder as to the contents of the box was soon solved: he drew from it a loaf of brown bread, a lump of butter, an orange, and a piece of currant cake; and then, after resting his morning paper, which he must have purchased on his last trip, against his parti-coloured teapot, he proceeded with his breakfast in the orthodox London fashion.

Whereupon, my interest in him being at an end, and my own necessities making themselves felt, I advanced to the bar; and, after buying a large cup of good tea, a cooked bloater, and two slices of buttered bread, all for the sum of threepence, sat down to my own breakfast, at just double the price (as I soon learned) that my prudent old financier was paying for his. It was a lively and variegated scene. From the navvy in clump boots and corduroys to the well-dressed dandy—old and young—every shade of life seemed to be represented there, without any collision or suggestion of incongruity, and all with the greatest orderliness.

After breakfast I walked into the recreation-

room, then upstairs to the reading-room, both apartments adorned all round the orange-chrome painted walls with large and splendid pictures of rural and historic scenes. Picking up one of the daily papers from one of the many polished tables, I sat down in a comfortable arm-chair before one of two large fires, and reflected that here indeed was a contrast with my quarters of the last few days. There seemed to be no end to the conveniences I came across in those spacious chambers in the course of the day; the very ideal of democratic good-fellowship seemed to hold sway within them; and when at night I ascended to the regions above, and took possession of my numbered cubicle, my satisfaction was still greater. For here was a tidy little room, 9 feet by 5 feet, with a window, a chair, a shelf with clothes-pegs below it, and a commodious spring-bed with hair mattress and plenty of clean clothing to cover it. If during the early part of the night I was once or twice disturbed by the snoring of a fellow-lodger in some neighbouring cubicle, the annoyance soon passed away, and I passed the long night in absolute comfort and repose.

The pioneer of these splendid institutions, Lord Rowton, is a hard-working peer, and the most modest of men. He was, as most people know, the confidential friend of Lord Beaconsfield. As long ago as 1866 the latter recognised the genial and energetic nature of Mr Montagu Lowry-Corry, and appointed him his private secretary, in which capacity he accompanied Lord Beaconsfield to the Berlin Congress of 1878. On the resignation of the Government, two years later, Lord Rowton was made a peer, taking his title from Rowton Castle, his seat at Shrewsbury. He refused many offers of public appointments during Lord Beaconsfield's life, preferring to render that statesman voluntary service rather than devote himself to any other work.

Lord Rowton is not often paragraphed in the personal columns of the newspapers, but he is, nevertheless, a great figure in the social work of the Metropolis; and the London poor single men will bless his name long after many names that are now better known have been forgotten. It is by his practical energy in one of the most deserving social movements of our time that he has won a high place in the ranks of philanthropists. Until a few years ago, one of the most urgent needs of the Metropolis was the provision of means whereby a working-man (unmarried) could live cheaply and cheerfully, free from the degrading surroundings of the common 'doss-house.' There were hotels for the rich in abundance, but nobody seemed to care for the stranger within the gates whose pockets were all but empty. Lord Rowton, impressed by this state of things, put to himself the question, 'Why should not the working-man have his hotel?' There was no reason why he should not; and one morning, in 1893, London

awoke to find itself the possessor of a new distinction—the only working-man's hotel in the kingdom, if not in the world. No blare of trumpets proclaimed the event, but four hundred men slept more soundly that night than perhaps they had ever done before; and from then until now hardly a bed has been vacant when the doors close half-an-hour after midnight.

So tremendous was the success of the first Rowton House at Vauxhall that a larger house was opened at King's Cross two years later, in 1895; and another, larger still, was opened at Newington Butts early last year. Others are now in process of erection at Hammersmith and White-chapel; while a sixth may soon spring up at Hackney. The latest of the 'Rowtons,' as they are colloquially called by those who use them, is on an enormous scale. It has provision for over eight hundred men, each of whom, for a modest sixpence a night, enjoys the full advantages afforded by an outlay of fifty thousand pounds. It has been Lord Rowton's endeavour to make the hotel as home-like as possible; and the absence of restrictions is one of the happiest features of the place. No questions are asked on admission—sixpence is the universal 'open sesame' to this palace of comfort. For a palace of comfort it is. There is not a brighter, cleaner, or more thoroughly respectable place in London than a Rowton House. So replete is the hotel with all the necessities of life that a man might live in perfect happiness for six months without leaving the premises. There is the bar, almost always open; there is the hairdresser, ever at one's service; the shoemaker always at his post; the laundry always working; the tailor always anxious to make or mend on the lowest possible terms. At the bar of the shop you can buy anything from a plate of roast beef for fourpence to a seidlitz powder for a halfpenny. The man who likes to cook his own dinner has the free run of the kitchens, with their fine ranges, or he may have it cooked for him by the Rowton cook; and the man who wants exercise may wander at will through half a mile of corridors, or in the square which separates one side of the house from the other, where he may lounge as long as he will. But the latest and largest Rowton House is so vast that it is difficult to describe it without confusing readers in a mass of details. There are nearly fifty persons on the permanent staff, including thirteen women whose duties are confined solely to making beds. Each woman makes over sixty beds each morning. The building is six stories high, and the area of all the floors is nearly ten thousand yards. Over three thousand blankets are needed for the beds, and there are eight hundred safes or lockers in which the men can lock up anything they desire. The number of hot and cold water-taps in the hotel runs well on into three figures, and there are always ready for use eight hundred gallons of boiling water. Though the prices are so low that a man can live in com-

parative luxury for a week on twelve shillings, a year's turnover in the three hotels represents a small fortune. At the very least, fifty thousand pounds changed hands in 1898, and probably much more. The beds alone will bring in eighteen thousand pounds—seven hundred and fourteen thousand beds at sixpence. It is not all profit, however, as will be readily understood. The bedclothes especially are a heavy item in the balance-sheet.

The most astonishing feature of Lord Rowton's scheme is that it pays in actual cash. 'Rowton Houses, Limited,' is one of the most successful concerns in London—'a philanthropy that pays five per cent,' to quote Lord Rosebery. The first house was established by Lord Rowton himself, at his own risk, and cost him thirty thousand pounds; but its great success opened up a vista of enormous possibility; and a company was formed with a capital of a quarter of a million. There are now, as already stated, three 'Houses,' providing beds for nearly two thousand men, and in a short time the number will be doubled. Nowhere else in the world is there to be had such a splendid sixpenny-worth as in these handsome and spacious hotels. Engravings of the works of the best painters hang on the walls; the books of the best writers are found in the library; the morning, evening, and weekly papers, and numerous games, are all at the disposal of the man who has paid his sixpence, along with a score of other advantages not generally found in the average home.

Lord Rowton, in the first years of the Vauxhall establishment, used to come and sit incognito among his guests, and chat familiarly with them as they sat in their cosy arm-chairs around the fire. 'It is one of the most important features of our work,' he recently said, 'that the men should bear in mind that they are only receiving what they pay for. There is no suggestion of charity. Everybody is on an equality. They appreciate what they get and the freedom they enjoy, and they do their best to please me. Not that I preach to them—I never do that. But they know that I like to see everything in order and clean, and they make it their business to keep things so. We have hardly half-a-dozen rules in the place, and these we could dispense with easily enough. You may be surprised to know that I have never seen a cut in a table or a mark on a wall in any one of our homes, though thousands of men of all sorts and conditions have passed through them.'

'All sorts and conditions' aptly describes the men who make use of the Rowton Houses. There is the educated man who has come down in the world, the shabbily-dressed man who can talk to you in many languages, the man who has squandered his fortune in riotous living. Actors, artists, musicians, discharged soldiers, menagerie and circus men 'down on their luck,' who not so

long ago thought less of a sovereign than they do now of the serviceable, vulgar penny, rub elbows with the ordinary, commonplace Cockney artisan and labourer. Men in frock-coats and tall hats mingle with men who wash their own shirts, and wait for them to dry in the room downstairs; and the man of professional rank sits side by side with the man who brings in a parcel of wrappers at night to address before he can purchase his next morning's breakfast. It is a cosmopolitan assembly; but one and all are grateful to the benefactor who has made them kin.

The Scot is there too—where is he not?—in his two subdivisions of Saxon and Gael. The salient difference between him and the Cockney is that when the Scots 'argle-bargle'—which they often hotly do—it is on topics of more than local or temporary interest; while to the Cockney such an event as the retirement of Justice Hawkins or a horserace is of more importance than a split in the Liberal party or the Fashoda fiasco. Over yonder in the corner by the window sits an old gray-headed Scotchman, who is almost in rags, but he once held his head high as an instructor in the Kensington Art Schools, and he now paints and retails for a living the loveliest little water-colour sketches. His head, too, is crammed full of ancient, and mostly exploded, lore about Babylonians and Egyptians, with which he drenches the curious person who is so rash as to draw him into conversation on this fascinating subject. His volubility is amazing, and equally so is his industry. In another part of the crowded room—for it is evening—sits a tall, handsome young fellow, a Scotch solicitor, who now earns his bread and butter by coke-handling at the neighbouring gas-factory. When he came in to his supper he was a study in gigantesque black, but he has now rid himself of his coating of soot, and his curly pow and delicate-tinted complexion bespeak him—as he is—of gentle blood and birth. He is a modern in thought, and sometimes combats the intensely Tory painter with a perfervid eagerness that makes the calmer Cockneys stare at both in wonderment. And now behold that spruce little man, with scarlet satin necktie and silver-mounted cane, and—I regret to add—port-wine complexion; he seems the very dandy of the room, though he must be considerably over sixty years of age. He, too, has performed his ablutions after the labours of the day, and doffed his work-a-day clothes. He was formerly an officer in the Scots Guards—everybody dubs him 'captain'—and is a scion of one of the proudest of the old Highland families. In manners, dress, and conversation, he certainly would not seem out of place in the first circles of Belgravia; but meanwhile what does he do for a living? With a very different suit, and presumably a different manner, he goes out in the morning, after cooking and eating his breakfast, to vend

bootlaces and matches at a certain street corner, where he has worked up a custom. And there is the precise Scot, too—a Scot apparently with some small allowance from his relatives—who has barely set his foot as a mariner on foreign parts, but thinks he has a mission to instruct mankind: 'I tell ye, my friend, the shortest day has nothing to do with it. The sun *never* moves; the sun is a fixed point; it is the worruld that moves.'

Throughout the different rooms and corridors of Rowton House, though rough expressions may sometimes be heard, the language in general is the language of courtesy. Nobody seems to be positively hard up in the miscellaneous crowd of young and old men, well-dressed and ill-dressed, cooking, eating, reading, writing, or chatting, pipe in mouth, about the place. It must not be supposed, however, that life is all *couleur de rose* even at Rowton House. The necessary sixpence may drain the lodger's resources for the day, and then he will have to go fasting for many a dreary hour, with what philosophy he may have at command. Or even the indispensable sixpence may be lacking on some cold night, and then he has the prospect of the streets before him for a night's lodging, for there is no credit given at Rowton House even to the oldest *habitué*. In that respect a three-and-sixpenny private lodging outside possesses, for the reputable lodger, its one distinct advantage over the 'Poor Man's Hotel.' Yonder young man, with the look of an actor, seedily dressed, and rather shamefaced-looking, has not a prosperous air as he flits about the room with something rolled up under his coat. It is a pair of trousers, or perhaps a fine crush-hat, which he wants to dispose of for the magic sixpence. Look at that sturdy-looking old Northumbrian, with the keen blue eyes and the grizzled, military-like countenance. He is sixty-four years of age, or more, and he looks for all the world like a retired Yankee colonel; but he is simply a jobbing gardener, and at this season of the year he gets very little to do. He passed the last night in the streets, and this is how he managed to pull through the severe ordeal. He was allowed to sit in the house till closing time, and then betook himself for shelter from the bitter north-east wind to the railway arch adjoining Vauxhall Station, which forms the junction of five converging streets at that point. At midnight, after the public-houses close, two perambulating coffee-carts take up their station there, and remain till 5 A.M., doing a thriving business. Our gardener, to avoid police notice, must keep tramping up and down under the long, chilly archway until about one o'clock, when a number of cabs begin to rattle up, and many of them stop at the coffee-stands for refreshment. Here is our nightfarer's opportunity, for he can compete with other unfortunates in similar case for the privilege of holding a horse's head

while the cabman and his fare are regaling themselves with coffee and cake; for this brief service he receives one penny, and if he is agile, quick-sighted, and venturesome, he may capture three or four pennies up till the waning of the cab traffic at 3 A.M. He then has the means of buying a little refreshment for himself, with something over; and then comes his worst experience—the desperate effort to keep his blood in circulation, and to resist the urgent craving of his whole being to throw himself down anywhere and sleep. At 5 A.M. a neighbouring cocoa-room, one of the Lockharts' many establishments, opens, and by investing a halfpenny (if he has no more) in a small cup of the beverage, he obtains warrant to rest and shelter himself—but not to do what he would fain do, sleep—until 7 A.M. At that hour Rowton House re-opens; he can re-enter its warm and cheerful

precincts as a prospective lodger for the next night; he may find some acquaintance who will share his modest breakfast with him; and then, after an hour's sound sleep on one of the kitchen benches, near the blessed, blazing huge fire, he sets out again on his tramp in search of work.

But these cases are exceptional, and serve to show how highly the advantages presented, at so low a charge, by the management of the 'Poor Man's Hotel' are valued by those who have once tasted of them. As our American cousins would say, Rowton House 'has come to stay,' and will ever be the noblest memorial of its founder. Lord Rowton is a nephew of the Earl of Shaftesbury. How much of his zeal in social work was inspired by his distinguished uncle's friendship we can only guess; but certainly the mantle of the humanitarian Earl seems to have fallen on worthy shoulders.

THE RED RAT'S DAUGHTER.

CHAPTER XVII.

IN the morning following the receipt of the letter from Foote, as described in the previous chapter, Browne was walking from his house in Park Lane in the direction of Piccadilly, when he descried Maas coming towards him.

'This is a fortunate meeting, my dear Browne,' said the latter after they had greeted each other; 'for I was on my way to call upon you. If you are walking towards Piccadilly perhaps you will permit me to save time by accompanying you.'

Browne was not feeling particularly happy that morning, and this may have been the reason that he was glad of Maas's company. He stood in need of cheerful society. But though he wanted it, he was not destined to have it. It was a bleak, dreary morning, and once or twice during the walk the other coughed asthmatically. Browne noticed this, and he noticed also that Maas's face was even paler than usual.

'I am afraid you are not very well, old man,' he said.

'What makes you say that?' asked Maas.

Browne gave him his reasons, and when he heard them the other laughed a little uneasily. 'I am afraid you've hit it, my friend,' he said. 'I am not well. I've been to see my doctor this morning, and he has given me some rather unpleasant news.'

'I am sorry indeed to hear that,' said Browne. 'What does he say is the matter with you?'

'Why, he says that it is impossible for me to stay in England any longer. He declares that I must go away for a long sea-voyage, and at once. To tell the truth, I do not come of a very strong family; and, by way of making me feel better

satisfied with myself, he tells me that unless I take care of myself I may follow in their footsteps. Of course it's all very well to say, "Take care of yourself;" but the difficulty is to do so. In a life like ours, what chance have we of guarding against catching cold? We dance in heated rooms, and sit in cold balconies between whiles; we travel in draughty railway carriages and damp cabs, and invariably eat and drink more than is good for us. The wonder to me is that we last as long as we do.'

'I've no doubt we are awfully foolish,' said Browne. 'But our fathers were so before us.'

'A small satisfaction, look at it how you will,' returned Maas.

'And so you're going to clear out of England, are you?' said Browne very slowly, after the pause that had followed his companion's speech. 'Where are you thinking of going?'

'Now, that was just what I was coming along to see you about,' replied his friend. 'You may remember that in Paris the other day you spoke of undertaking a trip to the Farther East. I laughed at it at the time, for I thought I should never move out of Europe; since then, however, or rather since the doctor gave me his unwholesome news this morning, I have been thinking over it. I dined last night with the Rocktowers, who, as you know, are just back from Japan, and found that they could talk of nothing else. Japan was this, Japan was that, possessed the most beautiful scenery in the world, the most charming people, and the most perfect climate. So fascinated was I by their description that I went home and dreamt about it; and I've got a sort of notion now that if I could only get as far as Japan all would be well with me.'

Now, from the very first moment that Maas had spoken of leaving England, Browne had had an uneasy suspicion that something of the kind was coming. In his inmost heart he knew very well what his companion wanted; but, unfortunately for him, he did not see his way to get out of it. When he had told Maas in Paris that he intended taking a yachting cruise to the Farther East, and had laughingly suggested that the latter should accompany him, he had felt quite certain in his own mind that his invitation would be refused. To find him now asking to be allowed to accept after all was almost too much for his equanimity. Pleasant companion as Maas undoubtedly was, he was far from being the sort of man Browne would have taken with him on such an excursion had he had the choice. Besides, he had already arranged that Jimmy should go with him. Therefore, like the ingenuous youth he was, he took the first way of getting out of his difficulty, and in consequence found himself floundering in a still greater quagmire immediately.

'You have not booked your passage yet?' he inquired, as if the matter of the other's going with him had never for a moment crossed his mind.

Maas threw a searching glance at him. He had a bold stroke to play, and he did not quite know how to play it. Though he had known Browne for some considerable time, and was well aware that he was far from being an exceptionally clever young man, yet, for a reason which I cannot explain, he stood somewhat in awe of him.

'Well, to tell the truth,' he said, 'that was just what I was coming to see you about. I wanted to find out whether you would permit me to withdraw my refusal of your kind invitation in favour of an acceptance. I know it is not quite the thing to do; but still our friendship is old enough to permit of such a strain being placed upon it. If, however, you have filled your cabins, do not for a moment consider me. It is just possible I may be able to secure a berth on one of the outgoing mail-boats. Get away, however, I must, and immediately.'

Browne scarcely knew what to say in reply. He knew that every person he added to the party meant an additional danger to all concerned; and he felt that, in common justice to Maas, he could not take him without giving him some hint of what he was about to do. Maas noticed his hesitation; and, thinking it betokened acquiescence to his plan, was quick to take advantage of it.

'My dear fellow,' he said, 'if I am causing you the least inconvenience, I beg of you not to give it a second thought. I should not have spoken to you at all on the subject had you not said what you did to me in Paris.'

After this speech Browne felt that he had no opening left save to declare that nothing would give him greater pleasure than to have the other's society upon the voyage.

'And you are quite sure that I shall not be in the way?' Maas inquired.

'In the way?' Browne replied. 'Not at all; I have only Jimmy Foote going with me. We shall be a snug little party.'

'It's awfully good of you,' said Maas; 'and I'm sure I don't know how to thank you. When do you propose to sail?'

'On Monday next from Southampton,' answered Browne. 'I will see that you have a proper notice, and I will also let you know by what train we shall go down. Your heavier baggage had better go on ahead.'

'You are kindness itself,' said Maas. 'By the way, since we have come to this arrangement, why should we not have a little dinner to-night at my rooms as a send off? I'll find Foote and get him to come, and we'll drink a toast to the Land of the Rising Sun.'

'Many thanks,' said Browne, 'but I'm very much afraid it's quite out of the question. I leave for Paris this afternoon, and shall not be back until Saturday at earliest.'

'What a pity!' said Maas. 'Never mind; if we can't celebrate the occasion on this side of the world, we will do so on the other. You are turning off here? Well, good-bye, and many, many thanks to you. You cannot imagine how grateful I feel to you, and what a weight you have taken off my mind.'

'I am glad to hear it,' said Browne; and then, shaking him by the hand, he crossed the road and made his way down St James's Street. 'Confound it all,' he said to himself as he walked along, 'this is just the sort of scrape my absurd mania for issuing invitations gets me into. I like Maas well enough as an acquaintance, but I don't know that he is altogether the sort of fellow I should have chosen to accompany me on an expedition like this. However, what's done cannot be undone; and it is just possible, as his health is giving way, that he will decide to leave us in Japan; then we shall be all right. If he doesn't, and elects to go on with us—well, I suppose we must make the best of it.' As he came to this philosophic conclusion he turned the corner from St James's Street into Pall Mall, and ran into the arms of the very man for whom he was in search. Foote was evidently in as great a hurry as himself, and such was the violence of the impact that it was a wonderful thing that they did not both fall to the ground.

'Hang it, man, why don't you look where you're going?' Foote cried angrily, as he put his hand to his head to hold on his hat. As he did so he recognised Browne.

'Hollo, old chap, it's you, is it?' he cried. 'By Jove! do you know you nearly knocked me down?'

'It's your own fault,' Browne answered snappishly. 'What do you mean by charging round the corner like that? You might have known what would happen.'

They stood and looked at one another for a moment, and then Foote burst out laughing. 'My dear old fellow,' he said, 'what on earth's wrong with you? You don't seem to be yourself this morning.'

'I'm not,' said Browne. 'Nothing seems to go right with me, do what I will. I tell you, Jimmy, I'm the biggest ass that walks the earth.'

Jimmy whistled softly to himself. 'This is plainly a case which demands the most careful treatment,' he said aloud. 'From what I can see of it, it will be necessary for me to prescribe for him. My treatment will be a good luncheon and a pint of the Widow to wash it down. Come along.' So saying, he slipped his arm through that of his companion and led him back in the direction of the Monolith Club. 'Now, Master Browne,' he said as they walked along, 'you will just tell me everything—hiding nothing, remember, and setting down naught in malice. For the time being you must look upon me as your father-confessor.'

'In point of fact, Jimmy,' Browne began, 'I have just seen our friend Maas.'

'Well, what of that?' replied the other. 'How has that upset you? From what I know of him, Maas is usually amusing, except when he gets on the topic of his ailments.'

'That's exactly it,' said Browne. 'He got on the subject of his ailments with me. The upshot of it all was that he reminded me of an invitation I had given him in Paris, half in jest, mind you, to visit the East with me.'

'The deuce!' said Jimmy. 'Do you mean to say that he has decided to accompany us, now?'

'That's just it,' said Browne. 'That's why I'm so annoyed; and yet I don't know exactly why I should be, for, all things considered, he is not a bad sort of a fellow.'

'Nevertheless I wish he were not coming with us,' said Jimmy, with unwonted emphasis. 'Did you tell him anything of what you are going to do?'

'Of course not,' said Browne. 'I did not even hint at it. As far as he knows, I am

simply visiting Japan in the ordinary way, for pleasure.'

'Well, if I were you,' said Jimmy, 'I should let him remain in that belief. I should not say anything about the real reason at all, and even then not until we are on the high seas. Of course I don't mean to imply for an instant that he would be likely to say anything or to give you away in any possible sort of fashion; but still it would be safer, I should think, to keep silence on the subject. You know what we are going to do, I know it, Miss Petrovitch knows it, and Madame Bernstein also. Who else is there you have told?'

'No one,' said Browne. 'But I dropped a hint to Mason that the errand that was taking us out was a peculiar one. I thought he ought to know as much as that for more reasons than one.'

'Quite right,' said Jimmy; 'and what's more, you can trust Mason. Nevertheless, say nothing to Maas.'

'You may depend upon it I will not do so,' said Browne.

'Now here's the club,' said Jimmy as they reached the building in question. 'Let us go in and have some luncheon. After that what are you going to do?'

'I am off to Paris this afternoon,' the other replied. 'Madame Bernstein and Miss Petrovitch leave for Japan in one of the French boats the day after to-morrow, and I want to see them before they go.'

After lunching with Foote, Browne returned to his house, wrote a letter containing the most minute instructions to Captain Mason, and later on caught the afternoon express for Paris. The clocks of the French capital were striking eleven as he reached his hotel that night. He was worn out, and retired almost immediately to bed, though it would have required but little persuasion to have taken him off to the Rue Jacquarie. As it was, however, he had to content himself with the reflection that he was to see her the very first thing in the morning.

(To be continued.)

PINHOLE PHOTOGRAPHY.



T may probably surprise a great many people who have not given the subject special attention to learn that the lens, which seems such an indispensable part of the photographic camera, is in reality as much an accessory as is the glass of the spectacles to the human eye. Such, nevertheless, is the case. Excellent photographs can be taken without the intervention of any lens whatever. A few words of explanation here may not be deemed amiss. As every schoolboy nowa-

days is aware, the human eye is simply a perfectly constructed camera in miniature. To reproduce the phenomenon of vision on a large scale, all we have to do is to exclude all light from a room except that which is allowed to enter through a small round hole in one of the sides of the room—in a shutter, for instance. Now look at the wall facing the hole in the shutter; you will see a faithful picture of what is going on outside in the street. The only difference is that the objects are all reversed and upside-down. The human eye and the photo-

graphic camera are both simply reduced models of the room with the hole in the shutter; or rather, it would be more correct to say, the room with the hole in the shutter is an enlarged model of the human eye.

Who it was who first investigated the phenomenon of the dark chamber—the camera obscura—is unknown; though it would appear from recent researches that the honour, like so many other honours, is due to Leonardo da Vinci, one of the most universal geniuses that ever lived. At any rate, fifty years after Da Vinci's death, Porta, a native of Naples, constructed, in the year 1569, a small model of the dark chamber, which to all intents and purposes is the camera of to-day without the lens. Ever since then it must assuredly have occurred to the mind of many and many a searcher that there might be some means of perpetuating the fleeting pictures that were successively painted on the wall of the camera obscura; but the secret took nearly three centuries to discover; otherwise, instead of dating from the nineteenth, photography might have dated from the sixteenth century.

Take a thin plate of bright polished silver. Expose it in the dark to the vapour of iodine, until its surface has acquired a light-yellow tint; still keeping all light carefully away from it, place it in a camera—a reduced model of the room with the hole in the shutter—opposite the hole. Now uncover the opening. The image of the objects in front of the hole is immediately projected upon the iodine-coated silver plate within the box, and—remains there; light having the property of chemically modifying the iodine. Such is photography in its simplest form. The iodine-coated silver plate is nowadays replaced by a highly sensitive dry plate; but the principle remains the same. A lens fixed in the hole accentuates the action of the light so that the photograph is much more rapidly painted; but just as no spectacles can give as clear a definition as one's own healthy eye, so does the lens of the camera distort the images it reflects to a certain extent. In the best lenses this defect has been reduced to the very minimum, but it exists nevertheless, modifying the natural perspective of the pictures. A photograph taken by means of a lens can never be anything, therefore, but an approximately accurate reproduction of a person or scene. The sneer of artists at photography is thus justified.

Though it has always been recognised that, in principle, a lens was not indispensable, it has hitherto been deemed impossible to take a satisfactory photograph without it. What are known as pinhole cameras—that is, cameras which are constructed with a tiny aperture through which the light is admitted, instead of a lens, have been looked upon more or less as pretty scientific toys demonstrating a principle and nothing more. Photographs, it is true, had been obtained by means of them; but they were

always very indistinct—'fuzzygraphs,' as they were contemptuously called. The unsatisfactory results hitherto obtained are due, it would seem, entirely to the fact that the matter had not been properly studied. A French amateur photographer, M. Combe, after a series of experiments extending over several years, claims that he has elucidated the most important factors in the problem; and some of the practical results he has obtained are truly astonishing. The camera M. Combe employs was constructed by himself, and, being made out of cardboard, cost only a few pence for materials; and yet the photographs he has succeeded in taking with this simple apparatus are almost perfect, and have evoked loud cries of admiration from all the artists who have seen them.

M. Combe shows that the notion hitherto prevalent among such a large number of photographers, that pinhole photography was subject to no laws, is quite erroneous. On the contrary, if successful results are to be achieved by its means, it is absolutely necessary to study and observe these laws with the greatest care. The necessary calculations and precautions, however, are not beyond the capacity of any intelligent child. All that is necessary is to place the sensitive plate at a certain fixed distance from the hole, the distance varying with the size of the hole. Knowing the size of the hole, a simple calculation enables the operator to find the precise distance from it at which the plate should be fixed. A difficulty, however, that seemed almost insurmountable was just that of knowing the exact size of the hole. If it is easy enough to measure a hole through which you can push your hand, it is a very different matter to measure one that will not admit a darning-needle. It may measure the hundredth part of an inch across, or it may measure the one hundred and twenty-fifth part of an inch. To know where to fix the plate we must first learn the *exact* diameter of the hole. How are we to find it out? or how are we to make a hole of a given size without invoking the aid of some skilled scientific-instrument maker?

M. Combe gives us the means, and it does the greatest credit to his ingenuity. He takes a hundred needles, all of the same size and calibre, lays them close together side by side, and measures them across. Suppose he finds that the hundred needles measure one and a quarter inch, or, to express the same in decimals, 1.25 inch. To find the diameter of one needle, all that is necessary is to divide 1.25 by 100—in other words, to move the decimal point two places farther to the left, .0125. The hole made by such a needle measures, therefore, .0125 inch; or, in vulgar fractions, $\frac{1}{80}$ of an inch; or, simpler still, $\frac{3}{8}$ of an inch. For every size of hole there is a corresponding focus at which the image projected through the hole is at its maximum of clearness, and it is at this point at which the plate must

always be fixed. Photographs taken by this method are in perfect perspective, and the contours of the objects represented, instead of presenting the hard lines so commonly reproached to photography, possess that soft natural aspect which has hitherto been one of the chief prerogatives of painting. To obtain this quality in their photographs is precisely what the best operators of the day have been striving to do for a long time past, with more or less success. The light that can pass through a hole one-hundredth part of an inch in diameter is so small in quantity that, naturally, the plate has to be ex-

posed much longer to its influence than is the case in the ordinary cameras, so that instantaneous photographs of moving objects are unobtainable by pinhole photography. It may well be, however, that some day photographic plates will be manufactured so sensitive to light that even the minute quantity passing through a pinhole will be sufficient to instantly impress them. When that day comes pinhole photography will perhaps triumph definitely. Meanwhile, after M. Combe's experiments, none need be deterred from being a photographer for lack of means to purchase the necessary apparatus.

ONLY A DOG: AN AUSTRALIAN STORY.

PART IV.



OR the first time since I saw Lawrence ride off with the horses I felt there was reasonable hope of escape. Now I felt sure that I should pull through somehow.

And whom had I to thank for it but old Jock, who twice in the one day had saved me almost by a miracle.

'And you asked me, boss, when we first met if I valued a dog's good opinion. After Jock and I had made a very sparing meal I fixed up some sort of saddle with the two sacks, bits of blankets, clothes, &c., with a good wide sling for my foot; fixing on my crutch and spear, I scrambled up, and made a start with as queer a rig-out as was ever seen in those or any other ranges.

'Before leaving I had one last shuddering look at that dismal shaft that had so nearly been my living tomb, and then turned my back on it for ever. It was just 3.30 p.m. when I left that accursed camp. There had been a lot, boss—my life's most terrible experiences—crowded into that one day since half-past six in the morning.

'I will not trouble you with all the details of my terrible ride.

'After leaving the camp I travelled on slowly for six or seven hours. There was bright moonlight, but still that is not a very favourable light for travelling in such rough country. Fortunately the horse, though not a very showy one, was staunch, mountain-reared, and active. Then I camped till daylight in the greatest agony. Next day on again, with occasional halts to rest the horse. I often shudder when I think of that journey. I was beginning to get light-headed from the inflammation of my wounds, and I felt I couldn't hold out much longer. The sun set for the second time; still I kept on mechanically. It was eleven o'clock that night when I roused myself up a bit; the country was certainly more open.

'A bit farther on Jock gave a whimper, and, putting his nose to the ground, trotted on in front.

I saw he had struck a track, made, most likely, by timber-getters. This might mean anything, as these men are constantly shifting their camps, and the track might be going either to or from one of them. But, as Jock seemed satisfied, I was. He took the lead now in such a confident manner that I felt my spirits cheered up, and they needed it. In a while my dog challenged. I stopped and listened. Yes, faintly in the distance there came a dog's bark. I kept along the track for another good two miles, the barking getting louder, till, on rounding a spur on the bank of a good-sized creek, I saw a camp before me—a couple of big tents, some timber-trucks and logs, while the jangling of bullock-bells was welcome music to me.

'I don't remember well what happened then. Of course all the dogs roared and barked and charged out, with Jock joining in the general commotion. I was told afterwards that I sat there on the horse blowing the whistle like mad. Then there were people round me. I was lifted down; some one put something to my mouth—it was a pannikin with a stiff glass of rum in it. Down it went, and a bit after I gathered my senses. I was in one of the tents, with a lot of hearty bush chaps round me. As soon as I was able I told them my story. You can imagine their surprise and wrath. I don't know which was greatest—that or their admiration for Jock, who, having given the camp champion a good dressing down, was unusually amiable, and allowed himself to be patted and made much of.

'"By the holy smoke!" said a young fellow they called Syl, "I'd sooner have that there dawg than the best horse this side of Victoria." And, as you know, from a young bushman, boss, that was paying him the highest possible compliment. When they understood how very bad my foot was, and that I couldn't possibly ride any farther, the young fellow, Syl, offered to go for a cart.

'"There's a spring-cart down at Pearson's; it's

only ten miles. I'll get my horse and be off at once. I'll be there before daylight, and back an hour or two after sunrise."

"So off he went. I was so exhausted that I fell into a heavy, restless sleep, from which I was roused about eight o'clock with the news that Syd was back with Bill Pearson, who was to be my coachman, and the spring-cart packed full of hay, on which I could rest my weary limbs. Bidding all hands at the camp good-bye, with hearty thanks for all their kindness, I started off with my new friend.

"I can't tell you a tenth part of all the goodness I met with. At Pearson's, when they saw how anxious I was to get on, they got fresh horses, and Bill Pearson undertook to see me right through into the Yackandandah. Fifteen miles farther on he got an exchange of horses, and before night I was back at the main camp, in bed, with a doctor looking after me. At first he was all for cutting off my foot. When he found I wouldn't suffer that, he patched me up in a sort of a way, so that in six weeks' time I was able to start for home. Father came as far as Albury to meet me with a Yankee wagon, and by degrees we got home. Then it was the doctor again, till at last I had to be taken to the hospital in Sydney. There I was operated on several times, but pieces of bone still kept coming away. At last I got all right, and had this boot with a spring instep made, with which I have managed to get on very well ever since.

"Of course I had made a deposition to the Victorian police of all that had happened, but nothing had been heard of Lawrence.

"He was taken, however, and Jock caught him. It came about this way. When at last I left Sydney as cured, better than twelve months after my accident, I went to Bathurst to stop for a while with uncle. My younger brother Charlie came over from the Mudgee side to see me and bring Jock, whom I hadn't seen for six months. You never saw such a meeting; I don't know which was the silliest, the man or the dog. About a week after, on a Saturday evening, one of my cousins, Jock, and I were in town, standing among a bit of a crowd near Webb's stores talking about a new rush, when suddenly Jock gave a fierce growl and sprang at a man passing in the road with a swag on his back. The man was so taken by surprise that he slipped and fell down, luckily for him on his face, for the dog was on him in an instant worrying him. Then I got Jock by the collar, calling out to secure the man, for I knew who it was without seeing his face. The police came up, and I shouted to them to take the man away quickly, for so furious were the dog's struggles that, not being very strong yet, I could hardly hold him. We got Jock home and chained him up, and I went over to the police-station. My story was well known all through the district, and I recognised Lawrence at once.

"He denied his identity of course, but I told the sergeant about Jock's tussle with him at the shaft; and, sure enough, when he was searched there was the scar of the bite on the thigh of his right leg—and a precious bad bite, too.

"When the Victorian police came over to fetch the villain they brought another warrant besides the one about my affair. A man who was crippled in some accident in Victoria had made a confession, some three months before this, that in company with another man he had robbed and murdered his two mates somewhere about a couple of months after my experience with Lawrence. Like me, this man had been decoyed into the bush. He stated where the bodies were buried, and they were dug up. The description given of his accomplice tallied so well with that given by the Bathurst police of Lawrence that a warrant for murder was issued against him, and the troopers got him back to Victoria in time for the other dying scamp to identify him; other evidence also was forthcoming, and Lawrence was hanged in Melbourne for murder. I had to go over there of course, but my case never came on. And now, boss, that's the whole of the yarn, lock, stock, and barrel, and I think I'll say good-night and turn in. . . .

"Well, I don't mind having another just for a nightcap."

"Yes; but what became of Jock?"

"Poor old Jock lived to be very old—more than twenty years—and died at Mr Oxley's head station of old age, a little over four years ago. He is buried in the garden, and there is a fine stone slab over him, with an inscription telling the wonderful things he did for his master; and it winds up by saying that even if you searched the world through you could never find a stauncher friend than lay there, although he was *only a dog*."

Next morning Jim rode a bit of the way with me. At the cross-roads he stopped and got off his horse to bid little Jock a most affectionate farewell.

"I suppose, little doggie," he said, holding Jock in his arms, "that I shall never see you again."

"That you will, I guarantee," I said, "and before many months, too. I am coming back here. In the meantime there's my address, and give me yours, for I'm going to write to you."

Now there had been something on my mind all the morning, and something on his. Out it came at the last moment.

"Do you happen to know," I asked in the most innocent manner, "the exact date when your old dog died?"

"Yes, I do," he replied; "it's on the monument. It was on the 17th August 1877. And as fair-play is bonny play, do you know the exact date when your little Jock was pupped?"

I did, and I told him. It was on the 18th August, just one day later, of the same year.

'Just so. I thought so,' said Jim.

'What on earth do you mean?' I snorted. 'Why can't you speak out plain instead of going on like that?'

'I mean exactly the same as you do, boss,' said Jim, with a laugh, 'and that is this. I don't know what they may call the thing in a dog that makes it know people, learn things, makes it wise, and guides its actions—whether it's soul or spirit or something else. But the soul or spirit,

or whatever you like to call it, that was in my old Jock when he died is in your little Jock now. I can see it in his eyes. And, look here, boss; if you were to argue till you were black in the face you wouldn't convince me to the contrary.'

'And considering, old man,' I replied, giving his hand a hearty farewell grip, 'that I am just of the same opinion myself, I am not going to try.'

THE LATEST JEWEL ADDED TO THE BRITISH CROWN.



HE latest addition to the British Empire, which is the Kowloon Peninsula, jutting out from the mainland of China towards the island of Hong-kong, has been acquired by us on the same principle as actuated the dog-in-the-manger—that is, we do not want it ourselves, but we do not intend to let any one else have it. The reasons for our apparently selfish conduct are not far to seek; for, while the territory in question is of little or no value to us, it might be of inestimable value to any power hostile to us should they acquire it for the purpose of erecting fortifications on the high hills which command the forts and harbour of Hong-kong.

The land recently acquired has dotted about it, especially where it looks towards Hong-kong, a number of high, barren, and very picturesque hills, between which are fertile, well-watered valleys, every square inch of which has been terraced and irrigated to grow the crops of rice and vegetables on which the dense population of the district lives. The people are a turbulent, hardy lot, highway robbery and piracy being their besetting sins. The strongly-walled villages, with massive gateways, show that intercourse between them is not always as friendly as it might be.

My knowledge of the district is derived from several shooting excursions I made to it some years ago, after the snipe and quail which haunt the rice-fields and brushwood; and perhaps some account of these may be interesting, as illustrating the character of the natives. They hate and despise Europeans, but are not averse to their visits on account of the 'kumshaws' or presents they receive from the foreign devils; and it is even said that they post their children all about among the growing rice when they see a white man shooting, in the hope that a stray shot or two may penetrate one of them and thus enable them to demand money in compensation.

Many Europeans have had most disagreeable experiences owing to shooting accidents of this kind. One man I know had the misfortune to shoot a native, and he was seized by the bystanders, his

hands and feet tied together, and a pole passed through, by which he was carried, head downwards, on the shoulders of several men, as they are accustomed to carry pigs, for miles over hill and dale to a mandarin, from whose custody he was only released, after very considerable delay and difficulty, at the instance of the Consul at a neighbouring treaty-port. His wrists still bear the marks of the treatment he underwent on that occasion.

Another case occurred while I was in Hong-kong. A party went out shooting, and one man's gun went off accidentally when a number of Chinese children were round him, one of whom was mortally wounded. The villagers took the whole party prisoners, and locked them up in a dark and filthy shed, making angry and threatening demonstrations round them. At length they apparently came to the conclusion that dollars were better than revenge, and intimated that the party would be released for eight hundred dollars; and one of the sportsmen was allowed to return to Hong-kong for the money, while the remainder of the party were kept close prisoners. The emissary knocked up one of the bank managers in the middle of the night, got his bag of dollars, and returned to his captive friends, whom he released from their uncomfortable position by the payment of the ransom. Every one said that had the parents of the injured child been offered ten or twenty dollars immediately on the occurrence of the accident they would have been perfectly satisfied; but the demand grew rapidly with the lapse of time, and the natives, knowing that such large sums were obtainable, rendered any more excursions to that district very dangerous. In fact, in so densely populated a district, where the natives were generally working in their fields, shooting was at all times by no means safe or pleasant either for the shooters or the shot!

I well remember a trip a large party of us made one very hot day. We were carried ashore from our launch by a number of the natives, and tramped for hours among the rice-fields. We walked along the narrow embankments separating the patches in which the rice grows in water three or four inches deep. Every few yards a water-snake awoke

at our approach and slid off the bank into the water, gorgeous dragon-flies darted hither and thither through the air, while shoals of little fish and creeping things played about in the water. The women and children ran out of the villages to stare and jeer at the foreign devils, while the men in their umbrella hats either went on with their work or joined our rapidly increasing retinue to see the fun and pick up our empty cartridge-cases or anything else they could lay their hands on.

When the sun got too hot for us to pursue our sport, and our internal sensations showed that it was near lunch-time, we adjourned to a shady grove and had all our good things unpacked. An admiring crowd of natives of all ages surrounded us, and made merry over the strange appearance and doings of the foreign devils. Soda-water and other effervescing beverages excited much mirth and wonder; but they were by no means averse to sharing with us eggs, cold fowl, and other viands they were familiar with. We were inclined to look upon them as a good-natured and friendly lot, till, our repast finished, we packed up and turned to go, when they at once bombarded us with a shower of stones and clods of earth.

There is an entire want of sentiment about John Chinaman. I suppose the struggle for existence is so keen in their densely populated country that they have no time to cultivate the softer emotions of kindness and gratitude. It is wonderful to observe the glee with which they see any one of their fellows hurt or made ridiculous. The tortures inflicted in their courts of law, and the bloody public executions which are so common in China, are all popular spectacles and entertainments in which even the children delight; while the indifference to the welfare and comfort of their women is to us a most painful study. I remember the wife of a wealthy Chinaman, who had never been able to bear him a living child, being admitted into the hospital at Hong-kong and safely delivered of a son. The husband at once insisted on removing both mother and child to his home, quite regardless of the fact that such a proceeding would be most dangerous to the woman; he apparently thinking that, as she had borne him a son who would be able to carry out ancestral worship for him when he was dead, the wife was of no further use to him.

When the children of the boat-people cry because they have been hurt, the mother, instead of soothing them, simply takes the cover of the well of the boat off, pops in the child, closes the lid and sits on it till the child is quiet; while if they see any one drowning, instead of rescuing the person in danger, they row away, it being a custom that whoever rescues any one becomes responsible for him in the future.

The fact that it always puts a Chinaman in a good humour to see any one made ridiculous is

utilised by Europeans when they get into a row with the natives. If you can make the majority laugh by caricaturing any physical peculiarity or gesture of one of your assailants, their anger evaporates at once.

On one occasion, when I was shooting with a friend, an old woman, evidently objecting to our coolies walking among her rice, rushed at us, followed by all the loafers in the village, flourishing formidable clubs, and yelling and gesticulating most violently. I was inclined to beat a hasty retreat; but my companion, who had been considerably longer in the country, reassured me, and, waiting till the old woman came up, he made faces at her and imitated her voice and gestures, when all the men round her began to laugh and left us unmolested.

There are no roads in our new protectorate, and no beasts of burden; the people, however, keep numerous pigs and dogs. The former are their favourite article of food, but look very unwholesome, with their lean, hollow backs and limbs, and stomachs flabby and pendulous, so that they generally rest on the ground. The dogs are those now so fashionable in England under the name of chows; and some varieties, as the name implies, are habitually eaten by their masters, as are also cats, rats, frogs, and other, to our tastes, most uninviting creatures.

These few anecdotes may tend to prejudice us against our recently acquired fellow-subjects, and therefore it is only just to say that the inhabitants of that part of China, when they emigrate away from the baneful effects of mandarin rule, with its squeezing and oppressive tendencies, have the best of characters. They are industrious, patient, law-abiding, and clever workmen. They will make a living where a white man would starve, in a new country pursuing the necessary but despised callings of washermen, cooks, and market-gardeners. Thus our new fellow-subjects may yet do good service to the empire in the hotter parts of Australia, in West Africa, and other parts of the world where the aborigines will not work, and where the heat is too great to allow of Europeans doing the manual labour necessary to open out and develop these valuable possessions. Men drawn from this district may also prove useful as soldiers, if it be decided to raise Chinese troops for the defence of Wai-hai-wei, recently acquired by us. With their homes and relations in British territory, they will not need to fear the vengeance of the Chinese authorities should they do anything contrary to the wishes of the mandarins. This is a lever which is made use of to a very great extent by the authorities in dealing with offenders. Should a man flee from arrest in China, it is said that the authorities at once imprison all his relatives till he gives himself up, which he is pretty certain to do. It is well known that a poor man in China will even take the place of a criminal condemned to death for a monetary

consideration, in order to make his parents more comfortable, or to pay suitable sacrifices to their departed spirits if they be dead. Respect and obedience to their parents, and care for their com-

fort in their old age, is one of the most marked and pleasing traits of Chinese character, and constitutes one of the most important parts of their religion.

THE MONTH: SCIENCE AND ARTS.

A GREAT WORK.



ONE of the grandest engineering works ever conceived has just been inaugurated by the laying of the foundation-stone, at Assouan on the Nile, of a vast granite dam which is destined to hold the waters of the historic river in check. This huge wall will be more than a mile in length, seventy-six feet high in places, and thirty or forty feet in width, so that it will form a bridge across the river as well as a dam to conserve its waters. The effect of this obstruction will be the formation of a reservoir with an area of about six hundred and seventy square miles, holding one thousand million tons of water; and it is estimated that this mighty volume will be the means of bringing two thousand five hundred square miles of desert land under cultivation. The so-called cataracts, which are in reality rapids, will disappear, and a lock at each end of the granite wall will form gates for the passage of vessels up and down stream. The work has been planned by Sir Benjamin Baker, will be undertaken by Mr Aird, and will probably be completed in about four years' time. It is regarded as the greatest engineering enterprise undertaken in the land of the Pharaohs since the building of the Pyramids.

INCENDIARY MICROBES.

Under the above title a writer in our French contemporary *La Nature* contributes an interesting article on spontaneous combustion, showing that when stored hay, bales of cotton, tobacco, &c. take fire, the action is in the first place due to bacteria. In wet seasons such fires are most common, and are due to storing the hay, &c., in a damp state; fermentation follows, with great rise of temperature—a process due entirely to the action of microbes; the hay is changed to a dry, porous, and carbonaceous condition; and it presently takes fire. It will consume slowly, until accident brings the external air to its help, when the incandescent mass bursts into flame, and the microbes which caused the initial mischief are destroyed in a funeral pyre of their own making.

THE PITCAIRN ISLANDERS.

Correspondence which has recently been issued by the Colonial Office respecting the present state of the Pitcairn Islanders tends to show that these descendants of the *Bounty* mutineers have degene-

rated. It is an interesting point whether this is due to the intermarrying which has gone on among them during the past one hundred and ten years. One peculiarity attaching to the islanders is the loss of the front teeth, not by disease, but by breakage. This they attribute to their food, which chiefly consists of bananas, yams, &c.; but the Tahitian natives, who are their near neighbours, and eat the same kind of food, are blessed with sound teeth. An American missionary and his wife say that the want of intellect among the young is simply appalling. Another observer describes these same children as being bright, merry little things, whereas the adults have a tired, hungry look, very different to what he had expected to find after reading of this unique island and its people. If they are questioned, the words must be put in very simple form, else they do not understand. This sluggishness of brain cannot certainly be put down to excess either in eating or drinking, for the Pitcairn Islanders are total abstainers, they do not smoke, and they are almost vegetarians in their diet.

FLASHING ADVERTISEMENTS.

At last an effort is being made to deal with that recent outcome of electrical progress known as the flashing advertisement; and although that effort does not extend beyond the limits of the Metropolis, it is at any rate an endeavour to reach the fountain-head where the evil is at present most rampant. No fewer than four hundred architects have petitioned the London County Council to stop a practice by which 'the architectural value of one of the most beautiful sites in Europe, Trafalgar Square, is thus nightly destroyed.' The petitioners have some hope that powers will be obtained to deal with this matter effectually, because some time ago, when an attempt was successfully made to throw advertising notices by means of a searchlight upon Nelson's Column, in the same square, an appeal to those in authority resulted in the practice being abandoned. An endeavour to advertise soap and pills on the clouds was happily abandoned about the same time because of its impracticability.

A NEW ELECTRIC LAMP.

For some time there have been rumours of an electric lamp on an entirely new principle, and the matter took more definite shape when the contrivance was recently exhibited at the Society of Arts, London. It is known as the Nernst in-

candescence electric lamp, and its chief peculiarity is that it employs a rod of refractory earth in place of the usual carbon filament, and that this material is not enclosed in a glass exhausted of air. The rod is preferably composed of the oxides thoria, zirconia, yttria, &c., which are employed in the manufacture of the Welsbach mantle as used in the incandescent gaslight, and when in a glowing white-hot state emits a most intense light. The arrangement differs from familiar forms of electric lamps in that it requires to be lighted with a spirit flame, or by other means, for the rod does not become a conductor of the electric current until it has been heated. The new lamp offers such economies of current in use that it is sure to meet with general adoption provided that the rod is cheap and does not require too frequent renewal.

SUBMARINE WARFARE.

Experiments in France with a submarine vessel, the *Gustave Zédé*, have once more invited quotations from Jules Verne's mythical account of a voyage beneath the sea, and the French press has somewhat hastily assumed that at last the fleet of perfidious Albion is at her mercy. There is nothing new about the idea of a submarine boat, for it has appeared in various forms during the past two centuries; but no nation has dared to put it to the test of actual warfare. We may feel sure that the English Admiralty would not have neglected this means of offence if it really possessed the marvellous powers credited to it by the French newspapers; and the same reasoning will apply to the non-appearance of the submarine vessel in the recent war between America and Spain. If such a boat should be considered a valuable addition to our naval resources, our naval authorities will not be slow to adopt it, and will benefit by the recent experiments in the production of a vessel which is sure to present many improvements upon the French model.

PEARLS AND RUBIES.

Although you cannot get 'figs off thistles' after any amount of cultivation, you can get pearls without diving for them in deep water, and rubies without going all the way to Burma for them. The latter, indeed, are said to be 'manufactured' in London on a tolerably large scale—so large that a ruby-making syndicate is said to be dividing £37,000 a year net profit on the business. These chemical rubies are said to be so perfect as to deceive the 'very elect'; and a well-known expert asks why, if Science can produce a trinket which cannot be told from Nature's, she should not have the benefit of the difference in price between what it costs to make the article in the laboratory and the obtaining of a stone of similar size and quality from an Oriental mine. As to size, that is simple enough; but as to quality, there are no doubt other experts who would wish

to have a say in the matter—those, for instance, who have a stock of *real* rubies on their hands. But, after all, what does it matter, when those who own real diamonds as often as not wear paste ones for safety? Pearls are not, as yet, made in the laboratory; but it seems they can be made in the aquarium, and that there is no need to dive to a depth of forty or fifty feet to obtain them. One Signor Comba has been experimenting for several years in the artificial production of pearls at an aquarium in Turin; and so successful have his efforts proved that he is now engaged in a plan for laying down a large quantity of pearl oysters (*Meleagrina margaritifera*) in the Mediterranean, along the south coast of Calabria, with a view to more extended operations. It is contended, however, that the mother-of-pearl shell will not 'live' in a temperature of less than sixty-eight to seventy degrees Fahrenheit, and but slight hopes are held out for the success of Signor Comba's experiment. In Queensland, however, they have been cultivated with success, as a result of an experiment conducted in Torres Strait by Mr W. Saville-Kent, F.L.S., late Commissioner of Fisheries to the Governments of Queensland and Western Australia. But the great drawback is the distance of these countries from the chief markets for mother-of-pearl, which are London, Hamburg, and Trieste, and the consequent expense of conveying the pearls thither. Still, it is admitted that there are great possibilities in the artificial production of pearls, and that it undoubtedly represents a most profitable industry, which could, under expert management, be carried on concurrently with systematic pearl-shell cultivation. The term 'artificial production' applies, of course, in a wholly different sense from that used in regard to rubies—the pearls themselves being real, and only the method of 'rearing' them being artificial.

STREET HYDRANTS.

We naturally pride ourselves upon our modern fire brigades, but we cannot expect them to render the most efficient help unless they are provided with a readily accessible supply of water. In the Metropolis itself, where the best appliances would be looked for, the method of supplying water to fire-engines leaves much to be desired. The hydrants are usually placed beneath the pavement, under an iron plate, which must be raised before connection with the engine can be made, and in frosty weather, especially if there be a leak in the valve, the whole arrangement is frequently covered with ice. Indeed, it is not an uncommon experience for the engine to be brought over the hydrant to thaw the ice before anything more can be done. A new hydrant, the invention of Mr William Jones, has recently been tried in London with some success. It is fixed to and forms part of one of the ordinary street-lamps, just like the arrangement

common in many private buildings. A valve close to it enables the water to be turned on at a moment's notice; and at a recent trial of the apparatus two lengths of hose were attached and the water flowed through them in fifteen seconds. By means of a syphon arrangement the water in the delivery tube can never freeze so long as it remains liquid in the mains.

FIREPROOFING WOOD.

Among the many valuable lessons taught by the recent war between Spain and the United States is the important one that a ship of war should have as little wood in its construction as possible, and that what there is should be fire-proof. Dr Hexamer recently read before the Franklin Institute a paper dealing with this subject, and showing how, by a comparatively cheap and easy process, woodwork may be rendered absolutely incombustible. It may be noted that the inventor of the system does not seek to make money out of it, but gives it to the American nation with a view to do his country a service. Before commencing his experiments Dr Hexamer laid down certain conditions which he considered imperative, the chief of which was that to prove effective against fire the wood must be treated, not on the surface only, but through its entire mass. After trying various substances with which to impregnate the wood, he finally chose water-glass, treating it at a later stage with ammonium chloride in order to render it insoluble. The woodwork is first of all heated in an iron container to expel all moisture; after which the water-glass is admitted under pressure, and is forced into the inner recesses of the wood. Ammonium chloride is then admitted to the container, under the same conditions, and the wood is finally washed in running water, and slowly dried.

FOR SANITATION AND SCIENCE.

The munificent gift of Lord Iveagh (Edward Cecil Guinness) of a quarter of a million sterling to the Council of the Jenner Institute for the endowment of scientific research as to the origin and prevention of disease, and another quarter of a million for the improvement of an insanitary area in the heart of Dublin, recalls the fact of his former benefactions towards industrial London. In November 1889 it was announced that he had placed in the hands of Lord Rowton, Mr Ritchie, President of the Local Government Board, and Mr Plunket, First Commissioner of Works, a sum of £250,000 for the erection of dwellings for the labouring poor. His intention was to provide sanitary dwellings for people somewhat poorer than those who had previously availed themselves of existing artisans' dwellings. Since 1889 the Guinness Trust has erected four blocks of buildings on the south side of the Thames—at Brand Street; St Page's Walls in Bermondsey; Snowfields, Ber-

mondsey; and Vauxhall. They have now two thousand three hundred and fifty rooms and tenements in all parts of London, with a population of over seven thousand under their roofs. Lord Iveagh's gift for research into the origin of disease recalls that of Sir William Savory of one hundred thousand pounds for the establishment of a convalescent home in connection with one of the London hospitals, of which the first announcement was made on January 1, 1890, as well as the recent munificent gifts towards providing sanatoria for consumptives. Sir Sydney H. Waterlow, who has been the moving spirit and chairman of the 'Improved Industrial Dwellings Company,' presented the London County Council in November 1889 with about twenty-nine acres of his estate situated in Highgate Hill. He also gave six thousand pounds in cash to purchase the freehold interest in part of this estate.

The donations for industrial dwellings in London made by the late George Peabody amounted in all to £500,000. The amount received for rent and interest up to 1898 brings the total fund up to £1,220,446. The Trust has provided for the artisan and labouring poor over five thousand separate dwellings and over eleven thousand rooms. It was the desire of Peabody in making the bequest that within a century the annual receipts from rents might yield such a return that there would not be a poor labouring man of good character who could not get necessary house-room. We may safely credit the labour and influence of the late Lord Shaftesbury with the first suggestion for this very practical use of surplus wealth.

A NEW FIREARM.

What seems to be a very formidable rival to the revolver is the light automatic carbine or pistol which has recently been put upon the market in three patterns, two of which come from Germany, and the other from Belgium. The new weapon is only half the weight of a rifle, it is sighted to five hundred yards, it will come in half for packing, and its cost is under ten pounds. Ten cartridges can be inserted in one second, and as many as eighty shots per minute have been fired from this compact weapon. The ammunition used is of the smokeless variety, and the cartridges are very light in weight. The weapon will doubtless prove of great use for sporting as well as for more serious purposes.

AN IMPORTANT DISCOVERY.

At a recent meeting of the Paris Academy of Medicine a report was presented by M. Laborde concerning some experiments made by him in conjunction with M. Jaubert with a view to restoring vitiated or breathed air to its normal condition. It is well known that expired air, besides being short of oxygen, is charged with carbon dioxide, watery vapour, and other products. The experimenters in question

assert that they have discovered a chemical substance which, by simple contact with expired air, will restore to it its lost oxygen, while at the same time it will rob it of all its noxious properties. Three or four kilogrammes of the compound will allow a man to live twenty-four hours in a confined space without any fresh air being administered to him from outside. It need hardly be pointed out that this discovery, if *bonâ fide*, will be of the greatest use to divers, firemen, and all who have to face an irrespirable atmosphere. In previous apparatus having the same object, caustic soda has been employed to absorb the carbon dioxide, while the oxygen has been renewed from a compressed store of that gas.

THE RAPID SEASONING OF WOOD.

Yet another application has been found for the modern wonder-worker—electricity—in the quick seasoning of timber, and by all accounts the process is a reliable one. At Charlton, Kent, the well-known electricians, Messrs Johnson and Phillips, have set up a plant in order to work the Nodon-Bretonneau system, which consists in immersing the timber to be treated in a tank containing a solution of borax, rosin, and soda—a mixture which may be described as an anti-septic varnish. Plates of metal are arranged above and below the timber, and these are so connected with a dynamo that the electrical current completes its circuit through the wood. Under this treatment the sap is driven to the surface of the bath, and the borax liquid takes its place in the pores of the wood. This part of the process occupies from five to eight hours, after which the wood is dried spontaneously or by artificial means. It is said that a fortnight's exposure to summer weather will render the wood as serviceable as if it had been stored in the ordinary way for five years.

THE RULER OF AFGHANISTAN.

Dr A. G. Gray recently gave a most interesting account of his experiences at the court of the Ameer of Afghanistan, where he sojourned for a long time, and was able to accomplish much good in the practice of his profession. Medical science among the native Afghan doctors is in a very primitive condition, and seldom, even by an accident, is the right remedy prescribed. At the time of Dr Gray's visit numbers of lives were sacrificed to ignorant medical treatment, a fair sample of which may be instanced from the fact that the Ameer himself was bled for gout, while his feet were placed in iced water. But the sufferer would not allow Dr Gray to prescribe for him until he had seen the effect of English treatment upon his servants, and this proved so satisfactory that at last the foreigner was called in to attend both the Ameer and the Sultana. In the case of the lady diagnosis was rather difficult, for doctor and patient were separated by a silk

curtain. Moreover, the Sultana plainly stated that she preferred her own nostrums to his. Dr Gray describes the Ameer as a clever ruler, who is doing much to civilise a people among whom murder and robbery have heretofore been regarded as venial offences.

THE VALLEY OF THE SHADOW.

The publication in our February issue of an article under this title describing the Norfolk village of Stiffkey has awakened an angry correspondence, and the Editor has received many letters indignantly denying the statements which it contained as to the gloomy and miserable condition of the place. In a letter to the *Eastern Press* of Norwich, Mr Victor Pitkethley virtually acknowledges having unintentionally maligned the hamlet, and the Editor can only express regret that he gave currency to misleading statements. It has also been pointed out that these statements bear a close resemblance to the description of the village furnished in a volume by Mrs Berlyn, entitled *Sunrise-Land*.

The Editor is assured by a writer who has known the place for forty years that it is one of the most lovely villages in Norfolk. Other correspondents point out that the cottages are tidy and comfortable, and that the fact of intermarriage and the number of red-haired Rufuses is untrue. There is a well-conducted voluntary school, the church services are well attended, and the chapel people have just decided to build a new place of worship. The gathering of the famous cockles, which appears to be a profitable industry, does not, at the same time, incapacitate the women for their other duties or the girls for domestic service.

TO A BLACKBIRD.

SABLE-COATED, golden-throated,
Well-spring of content;
Bird or angel, God's evangel,
Surely thou wert sent
From Heaven's portals down to mortals
To interpret *Love*,
In its sweetness and completeness
As 'tis felt above.

Deep and quiet—no wild riot
Like the lark's is thine;
Full and tender, thou dost render
Thy love-song divine;
And her spirit and mine hear it,
Answering to its call.
In its sweetness and completeness
Love is all in all!

M. HEDDERWICK BROWNE.

* * TO CONTRIBUTORS.

- 1st. All communications should be addressed 'To the Editor, 339 High Street, Edinburgh.'
- 2d. For its return in case of ineligibility, postage-stamps should accompany every manuscript.
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